

Use Attainability Analysis

for

WBID 0075 North Fork South Fabius River

Submitted by  
Tetra Tech, Inc

To  
Missouri Department of Natural Resources  
Water Protection Program

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet A - Water Body Identification

RECEIVED  
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WATER PROTECTION PROGRAM

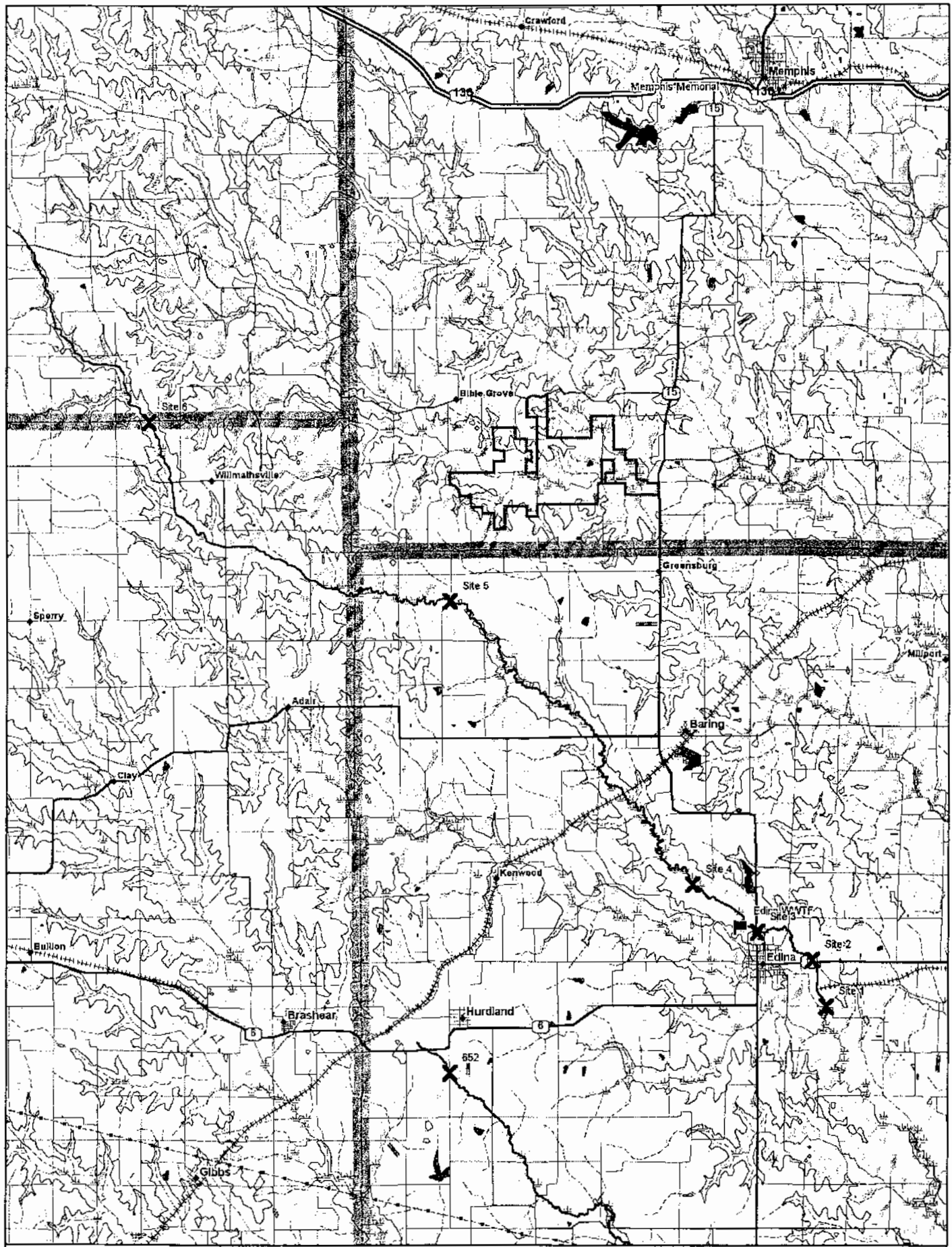
Water Body Name: (from USGS 7.5' quad)	N. FK. S. Fabius R.	
8-digit HUC:	07110003	
Missouri WBID #:	0075	
County:	Knox	
Upstream Legal Description:	NA	
Downstream Legal Description:	NA	
Upstream Coordinates: (UGS 84, ddd.ddddd)	40.15367, 92.14445	40.34667, -92.43783
Downstream Coordinates: (UGS 84, ddd.ddddd)	40.15367, -92.14445	
Discharger Facility Name(s):	Edina WWTF	
Discharger Permit Number(s):	NA	
Number of Sites Evaluated:	6	
Name of Surveyor and Telephone Number:	Shannon Prendergast	
Organization:	Tetra Tech, Inc.	
Position:	Scientist	

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shannon Prendergast Date: 7-8-05

*Y.P. 7/8/05*

N. FK. S. Fabius R.



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Scale 1 : 187,500  
1" = 2.96 mi



TN  
MN  
1.4°E

## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>0075</u>	Site Location Description: <u>#1</u> <u>Dirt road through woods, no bridge, road goes through stream</u>
Site GPS Coordinates: <u>40.15367</u> <u>92.1445</u>	
Date & Time: <u>7/8/05</u> <u>12:00 pm</u>	Facility Name: <u>Edin</u>
Personnel: <u>SP, YR</u>	Permit Number: <u>NA</u>
Current Weather Conditions: <u>Sunny, hot</u>	Weather Conditions for Past 7 days: <u>Sunny</u>
Photo Ids: Upstream: <u>44</u>	Downstream: <u>45</u> Other: <u>46 (road through stream)</u>

*upstream photo shows old collapsed bridge*

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

*banks entrenched, road goes through stream*

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>forest area near agriculture land</u>	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft): <u>2.0</u>	Max. Depth (ft): <u>3.0 ft</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): <u>(700m)</u>	

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>15.0</u>	Length (ft):	Avg. Depth (ft): <u>1.0</u>	Max. Depth (ft): <u>2.0</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

Substrate\*: (These values should add up to 100%.)

<u>40</u> % Cobble	<u>10</u> % Gravel	<u>20</u> % Sand	<u>30</u> % Silt	<u>50</u> % Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

<u>None</u>
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Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brown</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shan Prasad Date: 7-8-05

Organization: Tetra Tech Position: Scientist



0075\_001\_US



0075\_001\_DS





0075\_001\_Other



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>0075</u>		Site Location Description: <u>#2 on Road 6</u>	
Site GPS Coordinates:			
Date & Time: <u>12:55 pm 7-8-05</u>		Facility Name: <u>Edina WWTF</u>	
Personnel: <u>SR, VR</u>		Permit Number: <u>NA</u>	
Current Weather Conditions: <u>Hot, Sunny</u>		Weather Conditions for Past 7 days: <u>Hot, Sunny</u>	
Photo Ids: Upstream: <u>41</u>	Downstream: <u>40</u>	Other: <u>42 (concrete slabs under bridge)</u> <u>43 (partial fence over stream)</u>	

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>forested buffer, grasshopper agriculture</u>	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.



Stream Morphology:

#2

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>12</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>1.0</u>	Max. Depth (ft): <u>2.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>8</u>	Length (ft): <u>20</u>	Avg. Depth (ft): <u>0.75</u>	Max. Depth (ft): <u>1.5</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

Substrate\*: (These values should add up to 100%.)

<u>50</u> % Cobble	% Gravel	% Sand	% Silt	<u>50</u> % Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

<u>0% cobble cobbles are algae covered</u>
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Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>Brown green</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shan Rueland Date: 7-8-05  
 Organization: Tetra Tech Position: Scientist

JP, 07/08/05

0075\_002\_US



0075\_002\_DS





0075\_002\_Concrete Slabs



0075\_002\_Fence



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>0075</u>	Site Location Description: <u>#3 Bridge at Road 15</u>
Site GPS Coordinates: <u>40.17767</u> <u>92.175</u>	
Date & Time: <u>7-8-05 12:08pm</u>	Facility Name: <u>Edina</u>
Personnel: <u>SP, VR</u>	Permit Number: <u>NA</u>
Current Weather Conditions: <u>Sunny hot</u>	Weather Conditions for Past 7 days: <u>Sunny warm</u>
Photo Ids: Upstream: <u>3537</u>	Downstream: <u>36</u> Other: <u>NA</u>

SP 7-8-05

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>Agriculture residential</u>	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>20</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>0.5</u>	Max. Depth (ft): <u>1.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>15</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>2.0</u>	Max. Depth (ft): <u>2.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

**Substrate\*:** (These values should add up to 100%.)

<u>10</u> % Cobble	% Gravel	<u>70</u> % Sand	% Silt	<u>30</u> % Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

<u>10% algae on cobbles near bank</u>
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brown/green</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Sharon R. [Signature] Date: 7-8-05

Organization: Texa Tech Position: Scientist

10/7/05



0075\_003\_US



0075\_003\_DS



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: <u>0075</u>	Site Location Description: <u>#4 alternate</u> <u>in upstream of #3</u>	
Site GPS Coordinates: <u>40.178161, 92.176671</u>		
Date & Time: <u>7-8-05 12:25 pm</u>	Facility Name: <u>Edina WWTF</u>	
Personnel: <u>SP, YR</u>	Permit Number: <u>NA</u>	
Current Weather Conditions: <u>Sunny, hot</u>	Weather Conditions for Past 7 days: <u>Sunny, hot</u>	
Photo Ids: Upstream: <u>38</u>	Downstream: <u>39</u>	Other: <u></u>

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>Agriculture, some residential/forest</u>	

#### Evidence of Human Use\*:

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

#### Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

#4 alt

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft): <u>9.27/05</u>	Avg. Depth (ft): <u>9.27/05</u>	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>20</u>	Length (ft): <u>420</u>	Avg. Depth (ft): <u>3</u>	Max. Depth (ft): <u>4</u>
<input type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):		

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>10</u>	Length (ft): <u>20</u>	Avg. Depth (ft): <u>1.5</u>	Max. Depth (ft): <u>3</u>
<input type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):		

**Substrate\*:** (These values should add up to 100%.)

% Cobble	% Gravel	<u>80</u> % Sand	% Silt	<u>20</u> % Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

<u>Fallen trees/branches upstream</u>
---------------------------------------

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shane Prudigant Date: 7-8-05

Organization: Tetra Tech Position: Scientist

7/8/05



0075\_004\_US



0075\_004\_DS



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0075	Site Location Description: #5 on bridge at Road "C"	
Site GPS Coordinates: 40.2675 Lat 92.30733 Lon		
Date & Time: 7-8-05 11:17 am	Facility Name: Edina WWTF	
Personnel: SP, YR	Permit Number: NA	
Current Weather Conditions: Sunny hot	Weather Conditions for Past 7 days: Sunny, warm	
Photo Ids: Upstream: 34	Downstream: 35	Other: NA

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: Agriculture land Crops	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.



## Stream Morphology:

## Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>40</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>1.5</u>	Max. Depth (ft): <u>3.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft): <u>1.8 ft</u>	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

## Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>40</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>1.5</u>	Max. Depth (ft): <u>3.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

## Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	<u>100</u> % Mud/Clay	% Bedrock
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## Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

<u>NONE</u>
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## Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>Cloudy</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shan Pandey Date: 7-8-05Organization: Tetra Tech Position: Scientistg-p 7/8/05

0075\_005\_US



0075\_005\_DS



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0075		Site Location Description: 206, off Bridge Creek Rd	
Site GPS Coordinates: 40.34667N, 92.43783W			
Date & Time: 6/8/05, 10:00am		Facility Name: Edina WWTF	
Personnel: SP, YR		Permit Number: NA	
Current Weather Conditions: Sunny, warm		Weather Conditions for Past 7 days: Sunny, warm	
Photo Ids: Upstream: 31	Downstream: 32	Other: 33 (surface film, vegetation near road crossing)	

#### Uses Observed\*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

A farmer was preparing to reinstall a fence for his livestock

Stream crosses over road, floods when it rains

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: Agriculture land grass land	

#### Evidence of Human Use\*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input checked="" type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other: Agriculture nearby				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

site #06

**Stream Morphology:**

**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>10</u>	Length (ft): <u>25</u>	Avg. Depth (ft): <u>0.75</u>	Max. Depth (ft): <u>1.5</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

**Downstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>10</u>	Length (ft): <u>50</u>	Avg. Depth (ft): <u>0.5</u>	Max. Depth (ft): <u>1.0</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec):	

**Substrate\*:** (These values should add up to 100%.)

up: <u>10</u> % Cobble	% Gravel	% Sand	% Silt	<u>90</u> % Mud/Clay	% Bedrock
down: <u>0</u> % Cobble	<u>10</u> % Gravel	<u>40</u> % Sand		<u>40</u> % mud/clay	

**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

grasses at edge of road, some algae on cobble & sediment/gravel (20%)

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <u>brown film on downstream side</u>

**Comments:** Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shan Pradyot Date: 7-8-05

Organization: Teton Tech Position: Scientist



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